

REMARKS

Claims 8 and 9 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The examiner rejects these claims for lack of support in the specification for the claim language that describes an opcode that has boundary checks that are removed. The examiner acknowledges that the specification as background art on page 3, lines 3-5 describes a system having boundary checks. The examiner also acknowledges that on page 4, lines 3-6 in the summary the applicant describes these boundary checks in the core loop as being removed. This is also found on page 8, line 5-9.

The examiner's reason for rejection is that the description on page 3 for prior art which has these boundary checks is a different implementation from that of applicant's implementation on page 4 in which these boundary checks are absent. There is no teaching in applicant specification that the boundary checks are absent. The descriptions on pages 3 and 4 are part of the same specification and are related to each other. As recited on page 3, lines 3-5, it is stated that the core loop should have two boundary checks and that these checks introduce additional instructions and increase the time taken for rendering one pixel. Page 3, lines 6-7 further states that it is desirable to provide a method for reducing the time to take for rendering each and every pixel in the case of shading opcodes. The very next sentence in the specification is that for a given opcode table, maximum and minimum values of index are determined and the lookup table is expanded in both directions to take care of these maximum and minimum values and the checks in the core loop are removed, reducing the total rendering clock count. This is

found on page 4, lines 3-5 and quoted by the examiner. These new inventive steps of the present invention are performed on the prior art system with the boundary checks in the loop. Further it makes no sense to remove checks in the core loop if they were not there to begin with. The whole text in the summary on page 4 lacks antecedents if it does not refer to the text on page 3. Clearly, the boundary checks are present and that after maximum and minimum values of index are determined and the lookup table is expanded in both directions to take care of these maximum and minimum values, the checks in the core loop are removed. That is the method presented in the specification and in the claims. As stated in the claims the lookup table is expanded by replicating the highest value for those entries above the maximum value and replicating the lowest value for those entries below the minimum values of the index. This is clearly presented in the claims and is clearly what is taught in the specification including the text on page 3, the summary on page 4, lines 3-6 and the text to follow including page 8, lines 5-9. On page 8 it clearly again discusses determining the maximum and minimum values of the index values as shown in step 27 of Fig. 2, followed by the expansion of the lookup table in both directions as illustrated by step 29 in Fig. 2, and this is followed by the statement that the checks in the core loop are removed. This is the way in which the specification is written and certainly is well understood to be what is taught to one of ordinary skill in the art.

Is the examiner suggesting that putting the cited text and description on page 3 under the title of "Background of Invention" and the cited text and description on page 4 that follows under the title "Summary of Invention" necessarily make these descriptions unrelated and must be entirely separate structures? If this be the case, there is no support

for this argument. In section 608.01(c) it states that : “ The Background of the Invention ordinarily comprises two parts:(1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions. The statement should be directed to the subject matter of the claimed invention.(2) Description of the related art.... A paragraph(s) describing to the extent practical the state of the prior art or other information disclosed known to the applicant, including references to specific prior art or other information where appropriate. Where applicable, the problems involved in the prior art or other information disclosed which are solved by the applicant's invention should be indicated.”

In section 608.01 (d) for Brief Summary of Invention, it states: “A brief summary of the invention indicating its nature and substance, which may include a statement of the object of the invention, should precede the detailed description. Such summary should, when set forth, be commensurate with the invention as claimed and any object recited should be that of the invention as claimed.”

Nothing in the description of these titles supports the position that the text on page 3 under “Background of Invention” must be interpreted as being separate from what is described on page 4 under “Summary of Invention.” Quite the contrary is true. The subject matter is to be related to each other and the claimed invention. There is nothing in these descriptions that states that what is described in the background can not be continued in the summary to describe to subject invention. This subject application is one in which something is added to the prior art to make a new and improved invention.

If the description of the summary of the invention on page 4 was what the examiner argues is the case, it would not have to mention the boundary checks at all or would

state, as the examiner suggests, that the boundary checks were absent. This is not the case. The logical description of the invention in applicant's specification follows what is claimed in applicant's claims 8 and 9.

In view of the above an enabling disclosure as to claims 8 and 9 is presented.

Since Claims 8 and 9 would otherwise be allowable, claims 5-6 and 8-9 are deemed allowable.

In view of the above applicant's claim 5, 6, 8 and 9 are deemed allowable and an early notice of allowance of these claims is deemed in order and is respectfully requested.

Respectfully requested;

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